The MAC Flyer

SEPTEMBER 1975

Rescue - MAC's Benevolent Tough Guys.

The MAC Flyer

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For Greater Efficiency
in MAC Air Operations

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Flyer Call

As indicated by the cover, this month's issue of your flying safety magazine is dedicated to the Aerospace Rescue and Recovery Service and most of the articles were written by people in Rescue.

The concept of dedicating a specific issue to one segment of MAC is in keeping with our efforts to involve as many of you as possible with the magazine.

Setting aside magazine space in this manner has not always worked out so well. One "special" issue would have consisted of little more than C. R. Terror and 15 blank pages had we depended solely on guest inputs from the field.

But not so with this issue. This time, the response was great. Articles kept pouring in from ARRS units around the world. Not only did most of the authors have something important to say, their tales were interesting. But the response shouldn't have been surprising; ARRS had done it before — half of all the stories submitted in our recent safety writing contest were from individuals in ARRS. Talk about esprit de corps.

But you don't have to belong to ARRS to enjoy this month's issue. Most of you will find all the articles interesting. And after you've read them, we'd like to know what you think of this type of issue. So why not drop us a line and let us know what you like — or don't like — about the magazine this month.

The MAC Flyer

by Maj Gen Ralph S. Saunders
Commander, ARRS

Our Changing Profile

Since this issue of THE MAC FLYER is dedicated primarily to the Aerospace Rescue and Recovery Service, it is appropriate that we take a look at a few of the things that are happening in the Service during this post-SEA period.

The job of Rescue is one of the most gratifying missions in the USAF today. It is a mission that measures effectiveness in terms of lives saved, human suffering reduced, and the recovery and protection of valuable resources. The exploits of the Jolly Greens, Pedros, and Kings in SEA and elsewhere are well known. As we become more involved in the MAST mission, our "Save" and "Bever" aircraft (Hueys) in the CONUS are building a fine record for saving lives and alleviating suffering. Our missions have been flown in the worst weather, on the blackest nights, over the remotest terrain, and, in SEA, against the biggest guns. Nevertheless, the success rate has been outstanding and says much for the preparation and professionalism of our flight crews and maintenance personnel.

In what we now term the post-SEA period, ARRS along with the rest of the Air Force is faced with the problems of austere funding, reduced flying hours, and the necessity to "do more with less." Although the numbers of personnel and units in ARRS is decreasing, we are expanding in some areas. On 30 September we will acquire the 5040th Helicopter Squadron and the 71 ARRS at Elmendorf AFB, Alaska, will become one of the largest composite units in Rescue. In the past year ARRS has gained two Air National Guard squadrons to add to its reserve force. So, these, combined with our four Air Reserve squadrons, now constitutes a major factor in the total force concept of the ARRS.

The inactivation of some units, the relocation of others, and the acquisition of new units and missions foretell a potentially dangerous period for ARRS; but this is the name of the game for most of MAC. The influx of younger, inexperienced personnel, both in operations and maintenance, and the turbulence created by force realignments can create major problems unless each individual, from the commander to the newest man, does his utmost to search out and eliminate hazards before they cause an accident. In a constantly changing situation, the Air Force cannot afford the luxury of maintaining the status quo in any activity.

Flight crews and maintenance personnel must be continually alert to new requirements and procedures. Functional managers must accept the responsibility of incorporating safety into every activity and insuring that a changing situation doesn't pass them by. In the final analysis it is the commander on the spot, the aircrewman in the aircraft, and the mechanic with the wrench who will keep us safe and mission-effective in the years ahead.

by Maj John F. Guilmartin
40 ARRS
Nakhon Phanom RTAFB, Thailand

"That Others May Live" represents the never-changing philosophy of our Rescue folks. But that's about the only thing that hasn't changed.

Rescue: Yesterday, T

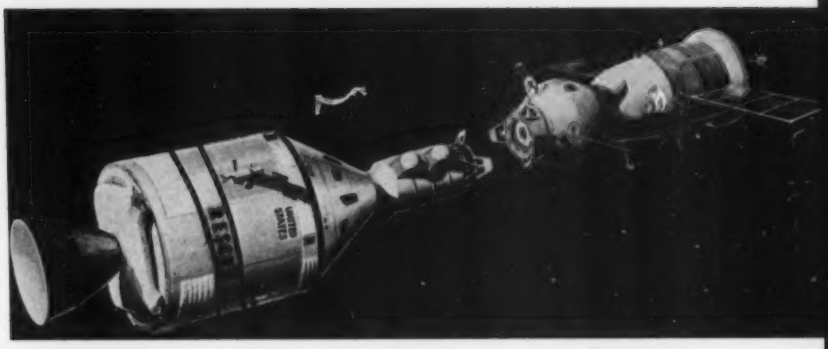
Ten years ago Air Rescue Service had no formally recognized combat role. Running on a tight budget, castoff aircraft, and dedication, it was scattered across the face of the earth in small, fixed-wing air rescue squadrons and even smaller rotary wing local base rescue detachments.

The mission could be extremely rewarding — what is more rewarding than a save? — but the flying, though demanding, was mostly repetitious and occasionally boring: duckbutt after precautionary duckbutt orbit for the HC-54's, HC-97's, and HU-16's and "around the flagpole" locals for the HH-43's; pararescue deployment procedures and criteria were briefed, rebriefed, and briefed again; HH-43 crews fought fire after practice fire and honed their rescue hoist procedures to a fine edge in pattern after pattern. Maintenance crews struggled with their respective aircraft and swore at their supply priorities; commanders swore at the fine print in host base-tenant agreements; helicopter pilots swore at the H-43's lack of range; PJ's swore at the lack of missions; and flight engineers, flight mechanics, loadmasters, and radio operators just swore.

There was a lot of professional competence in Rescue: but it would have taken an unusually astute observer to have seen in the Rescue of 1965 the aggressive, versatile, and coordinated combat team of today.

In Combat

The story of Rescue's expansion and assumption of the combat rescue role — today the primary mission of ARRS—has been told and retold. Within a few short years, Rescue shed its reputation as an organization that trained for a mission that never happened and became, pound for pound and man for man, the most highly decorated unit of comparable size in the Air Force. Beyond that, ARRS became an integrated combat team. No longer did the fixed wing and helicopter components go their own separate ways. Air-to-air refueling was an important part of the Jolly Green Giant's act and King crews had learned an enormous amount about guiding helicopters around mountains and thunderstorms at night and about orchestrating and coordinating air strikes. Pararescuemen now serve as helicopter gunners, in addition to jumping out of HC-130's. The question is "why was Rescue so successful in making radical changes in such a short period of time?" Few have mastered so difficult a mission in any amount of time. Part of the answer was the equipment: the HC-130K/P, the HH-3E, and the HH-53B/C are all thoroughly capable aircraft and all represented, at the time of their acceptance, the most ad-advanced machinery in the world for the job. Little effort was spared to keep them at the top of the class. Witness the development of the night recovery system for the '53. But equipment was only part of the answer. The combat aircrew mission provided helicopter crews with manifold opportunities for busting their collective rear ends; yet the mission got done and relatively few busted rear ends were logged in the process. Most of those logged were due to hostile fire, a standard occupational hazard. Air-to-



oday and Tomorrow

air refueling gave everyone a piece of the action, and the complexities of a fast-breaking combat aircrew recovery mission placed a high premium on the accuracy of each of King's transmissions. Maintenance crews had to work long hours, under heavy pressure, in the most primitive conditions imaginable. Helicopters in particular are highly vulnerable to shoddy maintenance, yet in-commission rates — genuine in-commission rates — went up when the pressure intensified. They still do.

People Did It

Plainly, then, Rescue's success was largely a matter of people. From somewhere, Rescue had laid hands on well-trained people who could do the job, people who could make difficult decisions and judgments under fire and who had the courage to see them through. Many of them came from outside of Rescue and went into combat with only the briefest brush with ARRS procedures and attitudes; still the "old heads" largely set the tone. The pararescuemen, who occupy the only career field unique to Rescue and who hold the only aircrew AFSC applicable to both fixed wing and helicopters, played a key role in this regard. The experience gained in flying duckbutts, making practice jumps, and fighting practice fires in the H-43 was efficiently converted into combat effectiveness. This was not because of the many combat duckbutts, combat jumps, or helicopter firefighting missions in Southeast Asia. But anything done truly well in, to, and around aircraft develops judgment, flexibility, and air — or maintenance or administrative — discipline.

Still, the combat environment that Rescue forces entered in 1964-1965 was a relatively undemanding one by today's standards. It got worse, much worse; but it got worse at a rate that allowed measured adjustment. So the equipment was changed and training adjusted to meet the threat; but, as in any such process of adjustment, there is the danger of over-specialization. The peacetime activities of the early 60's yielded very little in terms of specific skills used in combat aircrew recovery, but somehow they contributed to the judgment, basic aircrew skills, aggressiveness, and air sense that is needed.

Back to the States

By 1975 the terms of the old equation had changed radically. After the cessation of active hostilities involving American forces in 1973, most of Rescue's combat experience rotated back to the states and out of ARRS. A cadre was retained for training at Hill AFB and in that sense, ARRS was better off than it had been in '65. But were aircrews getting the same generalized, basic, flying experience needed to develop that hard-to-pin-down but vitally needed quality called air sense? With stateside flying tending toward all-IFR operations, this was a point of concern among helicopter people in particular.

The experience background of ARRS personnel had changed in many other ways as well. The old LBR was mostly a thing of the past. Additional UH-1 detachments, which had in effect taken

Yesterday

over from the LBR's, also picked up the MAST mission. Their flying wasn't all that different from the old "flagpole" operation of the LBR days. If anything, it contained more variety, and a fair amount of aircrew rotation between the Huey detachments and Jolly Green squadrons. Maintenance troops still swore at supply priorities; PJ's still swore at the lack of missions; commanders still swore at the fine print in their host-tenant agreements; and operations specialists had the new MAIRS reporting system to swear at, but they still swore; so did the flight mechanics, the flight engineers, the loadmasters, and the radio operators. Things, in short, looked at least as good as they had in 1965. But had the crews overspecialized in this training and lost their versatility in the process?

Son Tay, Koh Tang

The first clue was provided by the Son Tay raid in November of 1970. Different as it was from the normal aircrew recovery mission, ARRS aircrews had carried it out flawlessly. There were later clues, and more than just clues, really. In the spring of '75, Super Jolly Greens from ARRS were the first into Phnom Penh for the evacuation, inserting an Air Force combat control team. They were last out, extracting the Marine Command Group. Super Jolly Greens operated from the carrier *Midway* with CH-53's of the 21st Special Operations Squadron in the evacuation of Saigon.

The definitive answer came on 15 May 1975 off the beaches of Koh Tang Island. Refueled by HC-130's of ARRS, Super Jolly Greens from the 40th initiated efforts to recapture the S. S. *Mayaguez* by placing a U. S. Marine boarding party aboard the destroyer *Holt*. The 40th's HH-53's operating in conjunction with CH-53's of 21 SOS, then participated in the first opposed helicopter assault operation in ARRS history — or Air Force history — flying into the teeth of intense ground fire from entrenched hostile forces to put their marines ashore. Throughout the long day and into the night, the rescue team functioned smoothly and effectively in a completely new environment, evacuating wounded marines from fireswept landing zones and eventually extracting the last of the landing party under fire in the dark of a completely moonless night. Again and again, Jolly Green crews shot their way into the tightly confined landing zones with their miniguns, shot it out with hostile forces while on the ground, and shot their way out. Refueling after refueling with King was made without incident, despite heavy battle damage and marginal weather conditions. Unparalleled airmanship kept them there. Even the MAIRS reports went in successfully. For a few days, at least in the 40th, PJ's did not complain about the lack of missions. The maintenance troops were too busy mending battle damage to complain about much of anything. The commander was too tired to even read the host-tenant agreement, let alone swear about it. And then things reverted to normal — except that things really didn't revert to normal; they never will.

The *Mayaguez* incident illustrated graphically that such normalcy as there is today in international affairs is a very chancy thing. The American fighting man must be ready to take on the most improbable missions at any hour of the day or night.

ARRS, now one of the most versatile and flexible forces in the American inventory, is doubly vulnerable to such midnight calls. Ten years ago, the thought of ARRS aircraft conducting an assault landing against defended landing zones would have seemed preposterous. Today, because of the flexibility and professionalism of ARRS aircrews and the superior equipment they operate, it seemed perfectly natural. We've got to keep it that way.

ABOUT THE AUTHOR

Major Guilmartin is the assistant operations officer of the 40 ARRS, Nakhon Phanom RTAFB, Thailand, and is qualified in the HH-53C. He has also flown the HH-43B and HH-3E. He received his commission in 1962 and completed undergraduate pilot training at Laughlin AFB, Texas. Major Guilmartin attended Princeton University under the AFIT program and was an instructor in the Department of History at the Air Force Academy from 1970 until 1974. He participated in the evacuation of Saigon earlier this year. His military decorations include the Silver Star.

PJ's and How They Get That Way

by Maj Mel Parsons
ARRS/DOQ

Ever wonder about those self-assured, sometimes cocky, guys in Rescue who wear the maroon beret and get paid for participating in all the fun activities like scuba diving, parachuting, and mountaineering?

Well, if you're anything like I was, you probably have. Granted, I'm a pilot and may have looked at these guys with a somewhat jaundiced — or envious — eye. But that was a long time ago, and since then I have become a part of that group of men known as PJ's.

Unless you've worked with them, chances are not many of you know much about PJ's except what you might have read about their fantastic accomplishments in SEA. That's because, while PJ's have been responsible for the eventual safety of many individuals, they're not often involved in flying safety. I found out firsthand that PJ's are a lot more than what I once thought they were. The standards of the program are high and an incredible degree of dedication, physical ability, and stamina is required to successful-

How They Get That Way

ly complete the training program.

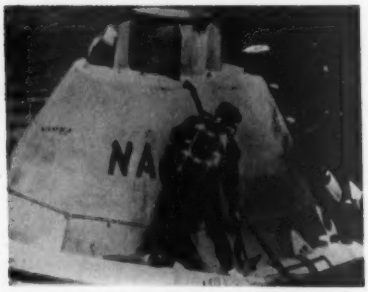
For example, a volunteer for PJ training is first given a demanding physical training test. For openers, he must swim 1,600 meters in 60 minutes and run a mile and a half in 11 minutes and 15 seconds. That may not seem like an overwhelming requirement but, after four weeks of intensive physical training, the trainee must show considerable progress. He must swim 4,000 meters in one hour and 40 minutes and run six miles in 48 minutes. If you don't think that's tough, try that last one on the next time you're out jogging. These requirements weed out those who either haven't enough motivation or who are physically unqualified. By the time a trainee leaves Lackland, he knows he's physically ready to enter the long training pipeline that, hopefully, will lead to a maroon beret. And that means more rigorous training at several specialized schools.

Schools, Schools, Schools

First, there's the School of Health Care Sciences for the basic pararescue medical course, then the Army Airborne School, the U. S. Navy Underwater Swimmers Course, the USAF Basic Survival School, and the Basic Pararescue School at Hill AFB. The entire program takes seven to eight months to complete, and believe me, it's tough.

As for the Army Airborne School, everything you ever heard about it is true. You run everywhere and undergo physical punishment for the slightest rule infractions. And about that first parachute jump — all I can recall is that shortly after hooking up in the aircraft, I was on the ground. Everything in between these two widely separated events is forever locked in the deep recesses of my subconscious — perhaps for the best.

The next step for trainees who survive to this point is the U. S. Navy Underwater Swimmers Course. As if things hadn't been tough enough up to now, here's where the physical training program really gets down to the nitty gritty. Without Gator Ade and honey, some of us would never have completed this part. Swimming 1,500 meters in the open sea is gruelling enough, but what really separates the men from the boys is an exercise called "pool harassment." This little game is played by two students, outfitted in scuba gear, and an unforgiving instructor. The students swim



A rare breed indeed . . .

With a thirst for adventure . . .

And a constitution to match.

to the bottom of the pool and the instructor attempts to make them surface. And anything goes — turning off a student's air, tearing off his mask, and yanking out his mouthpiece is all part of it. Any student who surfaces also washes out — no pun intended. To prevent this, students must continually assist each other during the exercise — sharing air and undoing the damage caused by the instructor — in a severe test of self-discipline and teamwork. One of the best swimmers in my class washed out in this phase.

Another testy part of the physical fitness program — and by now the students are in top physical condition — involves running relays and performing other exercises while carrying short telephone poles. For instance, half a dozen trainees lie on their backs and instructors place a telephone pole on their chests. The object is for the students to perform sit-ups. They're lucky to still be breathing when it's all over.

But in spite of the physical obstacles, only once did I have second thoughts about having volunteered for the program. It was on my first scuba jump from a plane. Laden with scuba and medical gear and dressed in full wet suit, I waddled to the door of the plane. As I looked out, all I could see was snow on the ground around the lake. And more snow was falling. Suddenly, it hit me. "What the hell am I doing here? I'm a pilot. I should be sitting up in the warm cockpit of this plane, with a steaming cup of coffee in my hand, not standing in the back-door about to jump out!" The next thing I knew I was tapped (or shoved) into space. Was the water cold when I hit it? I'm convinced I drained 30 minutes worth of air as I sucked in one huge breath when I submerged into that icy lake.

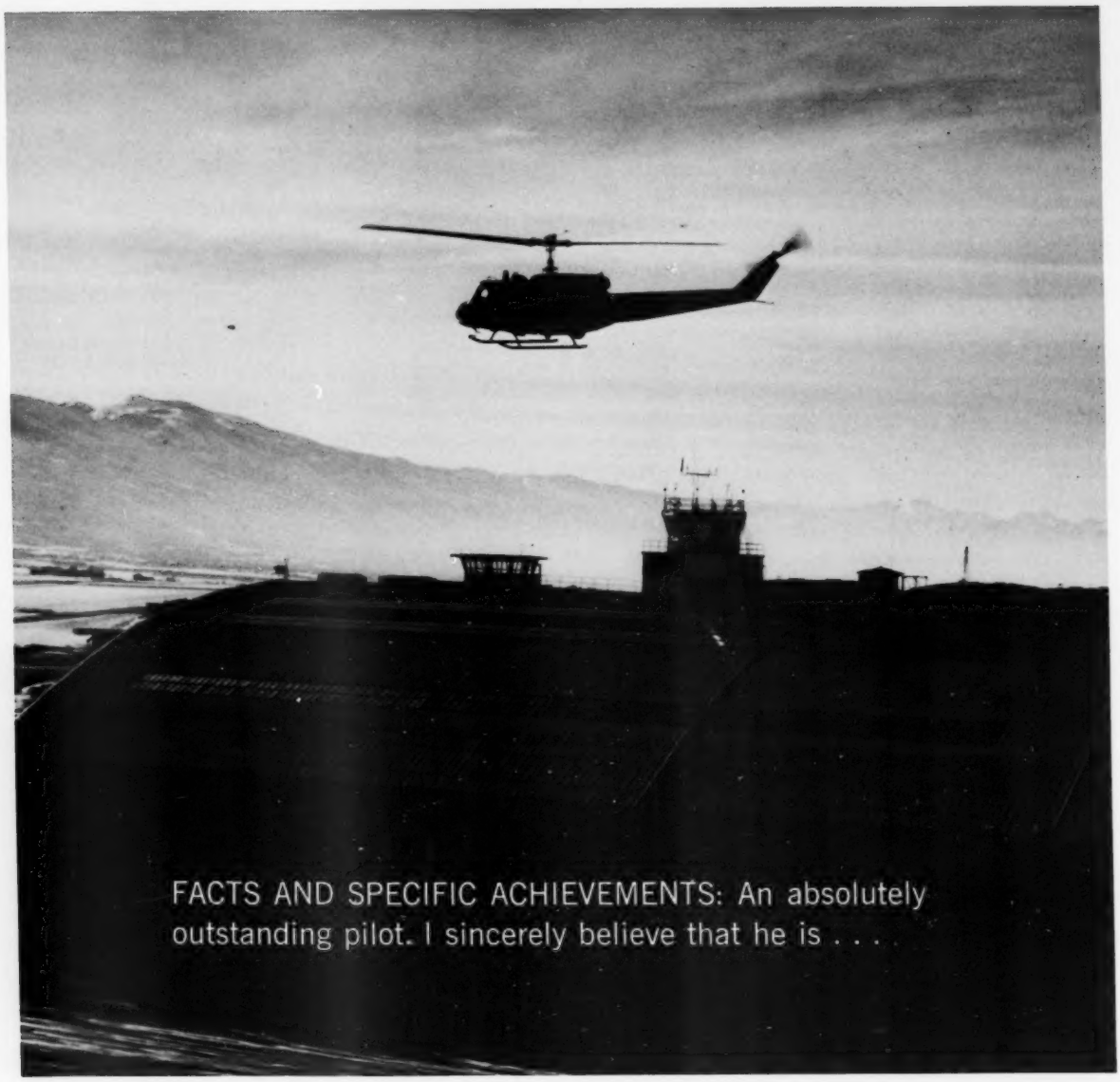
There are many other aspects of being a PJ than I have covered here, but suffice it to say that wearing a maroon beret means a great deal more than what I, as a pilot, once thought. And I didn't even mention the extra dedication required to excel and, sometimes, just to perform a "routine" mission, if there is such a thing. That's another story in istelf.

Was all the training worth the effort? You only have to ask a PJ, but I doubt that there's a single one who would trade his job for any other. Personally, I was as proud the day I received my beret as I was the day I pinned on my pilot's wings. And that's saying a lot.

Although I don't expect to be called on to participate in operational missions (my job is to help manage the pararescue career field), the opportunity to associate and work with this dedicated group of professionals has been rewarding. And the tremendous job that our PJ's are performing is enough to make me doubly proud of my "second" profession.

ABOUT THE AUTHOR

Major Parsons is a 1963 graduate of the University of Connecticut where he received his commission through the ROTC program. He completed pilot training in 1964 and has flown C-141's, C-130's, and HC-130's. He served in Southeast Asia with the 39 ARRS. As an ARRS Pararescue Staff Officer he occupies one of the two line positions in the Air Force requiring pararescue qualifications. He was a distinguished graduate from the U. S. Army Airborne School and was awarded the Army's coveted "Iron Mike." Major Parsons is a senior pilot and master parachutist.


FACTS AND SPECIFIC ACHIEVEMENTS: An absolutely
outstanding pilot. I sincerely believe that he is . . .

One of the Best

by 1st Lt Mark D. Gunn
Det 7, 37 ARRS
Minot AFB, N. D.

I'll be glad to help all I can in the investigation. Jim was a good friend of mine and a damn fine pilot. I guess you knew he was our additional duty safety officer. We had a fine safety record —up until yesterday—and mostly because of him.

"Yes, Sir. I was the Supervisor of Flying over the weekend. I got a call from the command post Saturday morning to launch one of our birds for a passenger run to one of the northern outposts, so I called Jim about six that morning, just a few minutes after the command post had called me. I could hear his baby crying in the background and his wife trying to quiet it down. Guess I woke them all up. I notified Jim of the zero eight hundred takeoff time and told him all about the mission. He didn't like it — had some choice words about the command post people. Yessir, I think you could say he was upset.

"I got to work just before seven and opened up shop. Maintenance had the aircraft on the line and all set to go. We couldn't use 556, the scheduled aircraft. It had a hydraulic leak. Maintenance substituted aircraft 330 instead. Jim came in and when he saw which aircraft he'd been assigned, slammed his fist down on my radio console. He hated flying 330 because the new hydraulic pump in it always had a high pitched squeal that sounded like a dying banshee. Whoever flew it always had to wear earplugs under his regular helmet. Jim hated earplugs. Anyway, he grabbed his helmet and stomped out of the office to the aircraft.

"No, Sir, he didn't fill out his TOLD card. But he had over 1,000 hours in the aircraft and, being safety officer, I'm sure he knew the load limitations and power requirements. True, the weather was unusually warm. But Jim had enough experience to overcome any minor deviations.

"Well, Jim started up his aircraft and was ready to go at eight. Then the command post called and said there would be a ten-minute passenger delay; well, that delay was followed by another ten-minute delay, which was followed by a 20-minute delay. I told him to shut down the aircraft and come on inside. Just as he entered the office, the colonel walked in. Would you believe he bawled us out for not having 'his' aircraft ready to go. Jim was ready to blow his top so I took the blame and tried to smooth things over.

"What was that? No, Sir, I wouldn't cancel the mission just because Jim was mad. He was our most experienced pilot and could hold his temper better than any man I've seen. Besides, that colonel would never allow me, a lieutenant, to cancel his mission on those grounds. How would it look if we aborted just because the pilot was a little upset?

"I watched Jim take off. I don't know what you might have heard, but he did not buzz the control tower. He did pass over it. After all, it was between him and his destination. It was warm and the aircraft didn't climb out as well as it might have. Jim may have been a little low, but he would never buzz anything. That's against regulations and Jim always followed regulations to the letter.

"He radioed that he was back up our frequency and that was the last time I heard from him. My radio had quit working.

"About ten minutes later, Sergeant Parsons stormed into the office. Pars is . . . er, was, the crew chief of 330 and was in a rage. Nobody had bothered to tell him that his aircraft was going to be flown that day. And since the aircraft wasn't on the schedule for the weekend, some unscheduled maintenance was being conducted on her fuel control system. But one of the mechanics had forgotten to enter the red X condition in the 781 and the aircraft had been buttoned up and prepared for flight. I was about to telephone tower and have them tell Jim to land as soon as possible when the crash net telephone rang. Jim had declared an emergency due to a flux in his exhaust temperature and rotor r.p.m. I told tower to have him land immediately. They told him, but he refused. He said he'd rather return to base than land in the middle of a wheat field and spend the night babysitting his aircraft. The last transmission received from Jim, which the tower recorded, was 'Colonel, get off those controls. Please, Sir . . . ' The call was broken off at that point. Tower spotted a fireball a few seconds later.

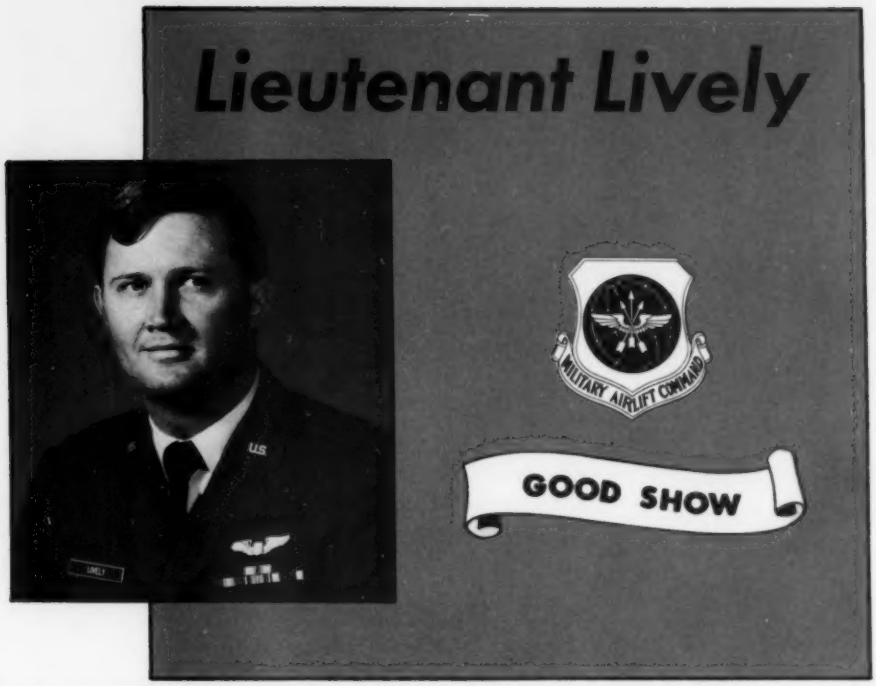
"No, Sir, the colonel didn't get a passenger briefing at the beginning of the mission. I don't know why he was sitting in the copilot seat. I know regulations say that the seat will only be used for passengers after the passenger compartment has been filled. Yes, there were three empty seats in the back. No, Sir, the colonel didn't have a helmet. We couldn't find one in time.

"Is that all you need, Sir? Well, may I say one thing? Jim was the finest pilot and safety officer I have ever seen. This unit has had an outstanding safety record since he took over. If the command post had given us a little more consideration, this accident would never have happened. They were very unprofessional—created such an agitated emotional state in Jim that he wasn't in complete control of the situation.

"No, Sir, I won't be here tomorrow. I have to drive Jim's widow to the funeral. But I'll be back Wednesday. Now that Jim is gone, I'll be moving up from assistant to full-time safety officer. Hope I'll be able to do as good a job as Jim did."

ABOUT THE AUTHOR

Lieutenant Gunn is a graduate of Texas Tech and was commissioned through the Air Force ROTC program there. He entered helicopter pilot training in 1972 and was assigned to Det 7, 37 ARRS, at Minot AFB, N. D., where he flew UH-1F's. He was Safety Officer at Det 7 for three years. In June of this year Lieutenant Gunn entered CH-53 training. His new assignment is to the 21 SOS in Thailand.



1st Lt Michael D. Lively and crew of the 1551 FTS departed Hill AFB in an H-3 to practice hoist operations at a 5,000-foot high remote mountain site along the west shore of the Great Salt Lake. Lieutenant Lively was instructing a student pilot during practice hoist recovery.

The helicopter was established in a 30-foot hover, and the hoist operator cleared the student pilot for forward flight. When the student applied power to take off, the number two engine decelerated to ground idle. Noting indications of decaying power, Lieutenant Lively took control of the helicopter and rechecked both throttles to ensure they were full forward. Rotor r.p.m. decreased rapidly to 90 percent and the helicopter began descending into an area filled with large boulders. Collective applied by the student prior to Lieutenant Lively's taking control had reduced rotor r.p.m. to the point that the helicopter was committed to a landing. Lieutenant Lively cautiously applied the remaining collective power and slowly maneuvered the aircraft to clear the boulders. Two to three feet above the ground, he applied full collective to cushion the landing. The aircraft touched down just as rotor r.p.m. decreased through 60 percent.

Any abrupt or erroneous cyclic stick movements by Lieutenant Lively at such low r.p.m. probably would have caused rotor contact with the cockpit and fuselage, resulting in probable injury to the crew.

Investigators found ice in the fuel control pressure line. This caused an erroneous input to the fuel control which, in turn, resulted in the engine malfunction.

Lieutenant Lively's expert judgment, skill, and superior airmanship prevented a serious aircraft accident and possible injury to the crew. Good Show, Lieutenant Lively.

If you really believe that "it's what's up front that counts," perhaps it's time to sit back and survey your kingdom.

The Voice at

by MSgt Charles A. Sweeney
71 ARRS
Elmendorf AFB, Alaska

About the Author

MSgt Sweeney entered the Air Force in 1955. He attended the Aircraft Mechanics School at Sheppard AFB, Texas, and later was assigned to SAC as a crew chief and flight mechanic. He trained as a C-130 flight engineer and was assigned to the 346 TAS at Dyess AFB, Texas. From August 1968 through March 1970, he served with the 39 ARRS at Tuy Hoa AB, RVN, as a flight engineer on Rescue HC-130's. He then transferred to the 39 ARRS, Eglin AFB, Florida, as Standardization Flight Engineer. Sergeant Sweeney is presently assigned to the 71 ARRS, Elmendorf AFB, Alaska, where he is Standardization Flight Engineer and Airman Career Advisor.

Sitting back at the flight engineer's panel for hundreds of hours has given me the opportunity to observe and analyze the performance of dozens of you who sit "up front." Naturally, while doing so, I often pose a few silent questions when decisions are made that affect the whole crew.

One of the questions I often ask is whether we aircrew members are really performing as professionally as we should. I know, we all like to think so, but are we doing our absolute best? You may answer yes, but I'm not at all certain that we are. Often, it seems to me, professionalism is lacking.

In the early days of aviation, flying safety amounted to little more than a "kick the tires and light the fires" pre-flight. The question of the day was not "Will it fly safely?" but "Will it fly?" The fragile aircraft of those days were held aloft by seat-of-the-pants pioneers charged up with soul-stirring enthusiasm — if nothing else. As aircraft evolved into high performance, complex machines, the thrill of seat-of-the-pants flying begrudgingly gave way to terms like "flying safety" and "professionalism." But to be perfectly honest, I've observed a few instances where mental attitudes toward flying indicate little evidence of evolution. You might have seen the same thing.

The system seems to have failed to provide a way to reach a few of the holdouts who refuse to become motivated and updated. Too often we exist in a fixed routine and refuse to expand our knowledge of modern aircraft technology. Perhaps it's time for us all to reevaluate ourselves and our job knowledge.

The measure of professionalism in any aircraft is how all crew members develop and command the knowledge of their specialties. A crew member who is content with mediocrity, or is satisfied with being less than he is capable of becoming, is unprofessional. It's too late to dig into the books after the master caution or system warning light has illuminated. Mediocrity, complacency, or whatever, on the part of any crewmember during airborne trials and tribulations may compromise the safety of the crew and aircraft. A "can do" attitude will not over-

Six O'Clock

come deficiencies in knowledge. A decision cannot be based on hopes alone.

No one crew member can do it all. The operation of today's larger aircraft requires a coordinated team effort. The pilot has within his crew a team of resident specialists and advisors. There are few problems that can't be resolved in the cockpit by closely coordinating activities; and crew coordination and dialogue shouldn't be confined to mandatory checklist items but to all the routine aspects of a flight. In short, know what the other guy is doing and let him know what you're doing.

Another aspect that's sometimes troublesome is the crew member who knows what the book says but doesn't agree with it and pursues his own procedure or course of action. This only serves to break down discipline and crew integrity which may lead to disastrous consequences. If discrepancies are detected in our checklists or other publications the proper avenue of correction lies with an AF Form 847, Recommendation for Change of Publication, not disagreement with the reg at flight level 310.

Scientists and engineers are continually designing, updating, and improving aircraft to make them safer and more reliable. As crew members we should keep pace by expanding our own knowledge of the equipment in which we place so much trust. We must recognize our responsibilities and do our part to prevent a needless aircraft accident and the heartbreak suffered by the mother who lost a son, the wife who lost a husband, or the child who lost a father.

Being a professional isn't an easy job. It's an uphill effort all the way. The only reward may be that of telling your grandchildren the heroic stories of a time when you flew the MAC heavies. Will your professional standards provide this opportunity?

Third Place Winner 1975 Writing Contest

A drowsy AC finds himself in real trouble; trapped fuel and an uncertain position make this trip a nightmare. Here's the whole story in vivid detail thanks to a . . .

Second Chance

by Capt Terry R. Lowe
53 MAS
Norton AFB, Calif.

"Estimating ten hours and 20 minutes 'til the blocks," reported the navigator. "That is, if these forecast winds hold up!"

With that, the aircraft commander pushed his seat back from the controls and announced, "Copilot's airplane."

The young AC unbuckled his shoulder harness and settled back to relax. Flying during the last ten days had been fatiguing and hectic, but at least the crew was on its final leg home. A few more hours of sleep at the last stop wouldn't have hurt, but that could be made up once they got back. He relaxed and his eyelids dropped as he thought of Jennifer, his current interest. What a body, he thought. Just wait until I get home!

A few hours later he awoke to find the copilot nodding at the controls. "How are we doing, Ace?"

Stirring quickly in the right seat, the second-in-command noted that the autopilot showed on course, and answered, "Pretty good, I guess. But we should be near ETP soon. Right, Nav?"

It was apparent that the navigator had also been checking his eyelids for leaks, but his eyes widened quickly as the copilot said, "Where the hell are we? We should have changed D-values almost an hour ago!" The whole crew came to life immediately.

"Nav, see if you can get a fix and a wag back to course!" the AC directed. "And Copilot, see if you can raise someone on HF — ATC is probably going crazy trying to contact us!"

"Pilot, scanner!"

"Go ahead, Scanner," the pilot acknowledged.

"I hate to tell you this, Sir, but I think I smell smoke down here in the cargo compartment!"

"Well, see if you can find out where it's coming from, okay?" ordered the AC.

"Yes, Sir!"

"Pilot, Nav."

"Go ahead."

"No dice on the celestial, Skipper — these clouds must be solid above us. I'm trying to crank up the Loran now," reported the navigator.

"Okay, Nav, keep trying."

"How about the radios, Copilot?"

"No luck here either. This damn cirrus has fouled up the HF and I can't get hold of anyone on either uniform or victor!" the busy copilot answered excitedly.

"Pilot, scanner!" called the NCO in the cargo compartment.

"What did you find, Scanner?"

"Well, the smoke's definitely coming from the underdeck area, but it's getting too dense to isolate it."

"Pilot, engineer."

"Go ahead, Engineer."

"I'm starting to get DC power fluctuations," advised the flight engineer. "Maybe we out to run the electrical fire checklist!"

"Yeah, good idea. Copilot, electrical fire checklist. Everybody get their oxygen mask on — 100 percent!" ordered the AC.

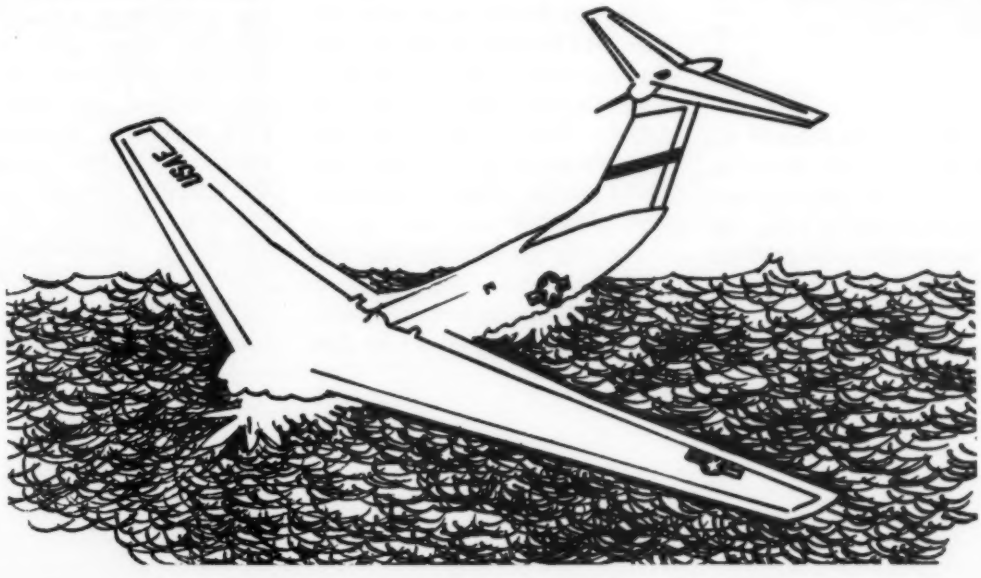
Amid much confusion and seemingly endless moments of total darkness and interphone silence, the checklist was accomplished. The smoke was traced to a short circuit in the transformer rectifiers but, by the time the problem was isolated, both TR's and the normal DC power supply were lost. Breathing rapidly, but attempting to compose himself, the aircraft commander asked, "How bad is it, Engineer?"

"Pretty grim, Sir. We can get by without most of the equipment we've lost, but we're really hurting for fuel. Main tank fuel is all we've got. DC power failure trapped all remaining aux and extended range fuel.

"Well, hell!" The AC was perspiring heavily now. "Let's see, we're burning approximately thirteen thousand pounds an hour on all four engines with roughly 44,000 pounds in the mains. That gives us somewhere around three and a half hours of fuel. Where's the closest field, Nav?"

"I'm looking right now. With the loran and all my computers on the fritz, I can only estimate our position within a couple hundred miles. All we have left to navigate with is the number one VOR and trying to find Midway or some other island north in the Aleutians will be next to impossible! I think our best bet is to head toward Hawaii and hope that we fly close enough to lock on to something."

Instructing the engineer to calculate a max range profile, the AC gently banked the transport toward what the navigator and the whole crew hoped was the shortest course to the Hawaiian chain.



Second Chance

Since most of the aircraft's load had been fuel for the trans-Pacific flight, there was nothing to be gained by descending and jettisoning the few thousand pounds of cargo aboard. So, for what seemed like an eternity, the grey and white Starlifter and its crew sailed through waves of cirrus, each minute bringing the total-time-remaining and the fuel-remaining curves on the range control chart closer to their critical intersection.

Finally, dawn pushed away the clouds, enabling the navigator to scan the heavens for a celestial fix. "Things don't look too pure, Pilot. We're about a hundred miles northwest of where I hoped we were. At this rate it will take two hours and 20 minutes to be overhead Kaneohe Bay MCAS on the north side of Oahu. Which leaves us about 15 minutes short of fuel."

For a few minutes each of the crew members sat silently as the harsh likelihood of ditching sank in. The copilot finally broke the gloom. "At least it'll be daylight. And we should be able to raise someone on guard pretty soon. So, with any kind of luck, we'll still make it for happy hour!" But no one was in the mood to appreciate his humor.

The Dash One was brought out, the crew reviewed ditching procedures, and each man donned a life vest.

"Roger, MAC Three Six Five. This is Japan Air Lines Seven Seven Nine on one two one decimal five," crackled the VHF. "Go ahead with your Mayday message."

The aircraft commander keyed his microphone and asked the JAL 747 to relay their situation to Honolulu Center. The JAL crew acknowledged the AC's transmission and advised that rescue aircraft and Hawaii National Guard interceptors from Hickam were on their way.

About 300 miles from Honolulu, the C-141 flight contacted Center on VHF. Shortly afterwards they made contact with the F-102 flight. Total fuel remaining dropped below 5,000 pounds, and the Starlifter began a slow en route descent.

Passing 20,000 feet, an HC-130 established visual contact with the Starlifter and assumed a trail position behind it. By now the sun was fairly high and the green outline of the islands was visible. But the altimeter and the fuel gauge continued to race downward.

"King" advised the 141 crew that they could expect to be picked up a few minutes after ditching. Although the sky was clear, strong surface winds blew the azure seas into turbulent whitecaps.

As the plane passed through 5,000 feet, the aircraft commander made a final check with the navigator. But he was assured once again that without the trapped fuel in the auxiliary and extended range tanks the aircraft's fuel would run out 80 miles short of Kaneohe. Strapping in securely, the sweating AC configured the aircraft for ditching and established a long flat final into the wind. Crew members strapped themselves to their seats and pressed anxiously against their headrests, anticipating the impact. Each crew member spent the last few minutes quietly rehearsing ditching procedures, monitoring instruments, and thinking faraway thoughts.

Shortly before the main fuel tank indicators pegged out at

zero, the AC slowed to ditching speed. Adrenalin pumping, he began to overcontrol slightly. Suddenly, a gust of wind tipped the left wing into the air. Before either of the pilots could respond, the right wingtip contacted the water and dug in! The huge transport cartwheeled around and the nose plowed into the waves. Everyone was thrown forward against their shoulder harnesses and the cockpit was filled with sounds of ripping metal and breaking glass. Then all was silent again.

The chill of salt water spray on the AC's face brought him back to consciousness and he realized that the aircraft was slipping below the water.

"Quick, everybody get the hell out of here before we go under!"

Turning to his right, he saw the stream of blood down the glazed eyes of the copilot, and realized his friend was beyond help. The scanner had already opened the overhead escape hatch, and the engineer and the navigator were scrambling from their seats. Life rafts were launched and the surviving crew members clawed and swam their way out of the cockpit. But the aircraft had suffered mortal wounds, and the sea was anxious to claim its prize. The aircraft commander was the last to exit, and as he swam away, the American flag on the T-tail settled beneath the turbulent waves. Stroking blindly and fighting the ocean for each breath, he heard the roar of jet engines coming closer. He flung his arms wildly, trying to be seen, but as he was dragged beneath the whitecaps, the warm sea began to calm him. Sinking downwards, he ceased to struggle and thought of his once proud plane and crew. "If only I had a second chance," he implored. And then the darkness overtook him.

"Wake up. Wake up!" Bolting upright in his seat, the aircraft commander felt something pushing his right shoulder. He opened his eyes. His copilot was staring at him.

"What the hell have you been dreaming about?" asked the second-in-command. "For the last few minutes you've been mumbling and squirming around in your sleep, and now you're wringing wet with sweat!"

Sitting up in his seat, the AC turned his fresh air gaspers to full and looked around the cockpit. He was amazed to find the rest of the crew in their familiar seats. "Huh? Oh, yeah, I guess that I must have been dreaming. Where are we, anyhow?"

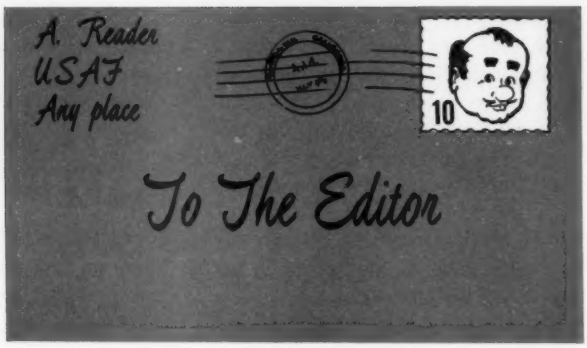
The navigator answered quickly, "Right on course. What did you expect?"

The aircraft commander leaned back in his seat again, letting reality seep back into his consciousness. The warm glow of the panel lights against the endless night was reassuring, and he was glad to be 35,000 feet above the ocean — with a second chance.

About the Author

Captain Lowe is a 1970 graduate of the University of Virginia, where he was commissioned through the ROTC program. He completed pilot training at Williams AFB, Arizona, in 1972 and was later assigned to Westover AFB as an EB-57 pilot. Captain Lowe now flies the C-141 and is Chief of Safety for the 53 MAS, Norton AFB, Calif.

Letters To The Editor



descending at 400 f.p.m. in a 200 f.p.m. downdraft would only display 200 f.p.m. on the VSI. If the VSI senses only pressure changes, then the situation described could only occur if barometric pressure levels in the area of operation were falling at a rate of 200 f.p.m. Pressure levels falling that fast at sea level would cause the station altimeter setting to be changed at a rate of one inch of pressure every five minutes. Are pressure changes of this magnitude possible in mountainous areas?

William J. Rakowski
7849 Crawford Avenue
Skokie, Illinois

★ **The author says that, although his example of 200 f.p.m. for a downdraft may have been exaggerated, the phenomenon itself is definitely feasible, particularly in mountainous terrain; however, the air mass would have had to be very small and isolated for such a rapid pressure differential to occur. The point of the story was that helicopters may not always react the same in mountainous terrain at high altitude as they do at lower levels.**

Bon Voyage

On 30 June 1975 I will retire after 33 years of service.

Lowered aircrew experience, changing roles, and new equipment have completely altered the face and character of MAC since the day in 1951 when I first stepped aboard a C-54 as a lieutenant copilot at Brookley AFB, Alabama. In the interim, I attended the Aviation Safety Course at USC and served as flying safety officer in several MATS and MAC organizations. It was my pleasure to know two former editors and several staff members of THE MAC FLYER personally. They were all dedicated airlift people.

Thru the years your publication was a real joy. Your articles were both timely and thought-provoking. I will always suspect there is a bit of C. R. Terror in each of us.

In later years I became ever more aware of your role in the MAC Safety Program as I managed aircrew resources in Standardization and Operations.

On the night of 3 Oct 1965, I was a crewmember on a Paris-bound aircraft experiencing a landing gear problem in Newfoundland while making a fueling stop. We were recognized with the MAC "Outstanding Achievement in Flight Safety" award for our efforts. This experience taught me once more that the MAC system of aircrew training and safety awareness is the best the Air Force can offer.

In today's environment of lower aircrew experience and reduced training hours your job is even harder. I have every confidence that your future achievements will be equally as impressive as past accomplishments, however. I leave with many fond memories of aircrew members and people who support them. They are some of the grandest people I have ever known. To THE MAC FLYER and to the best command in the USAF, Good Luck and Godspeed down the road into the future.

William H. Ramsey, Col USAF
63 MAW/AC
Norton AFB, Calif.

★ **Thank you. It's always good to hear from our readers; your letter, coming as it did just prior to your retirement, bears a special significance. Good luck.**

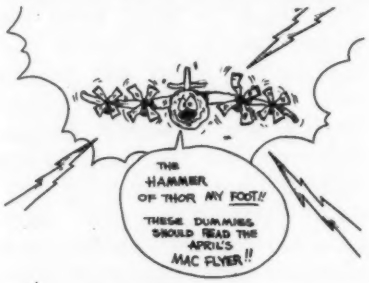
Lots of Pressure

I'm writing in reference to the article, "A Closing Lid on the Box Canyon," March 1975.

The article suggests that a helicopter

Cartoon Capers

I have enclosed three cartoons currently being displayed on our unit bulletin boards and the closed circuit weather TV system to draw attention to



this month's "FLYER."

We feel that this sort of advertisement helps to make maximum use of the limited number of THE MAC FLYERS available to our personnel and that similar posters could be used command-wide for the same purpose.

Thank you for your consideration of the above.

William R. Caldwell, Capt, USAF
Wing Flying Safety Officer
317 TAW/SEF
Pope AFB, N. C.

★ Thanks for taking time to send copies of the cartoons so ingeniously used by you in your accident prevention program. We'll pass on your suggestion. Sounds like a good idea.

Only "Heavy" Heavies

We were interested by the reprint of an article from the *Interceptor* which appeared in the May issue of THE MAC FLYER concerning three-bar VASI's. Confusion might have arisen over one point, though.

The author, perhaps unknowingly, groups all "Heavies" into users of the third bar. At the present time the only USAF aircraft which uses the upwind bar is the C-5A (the E-4A will in the future). Other USAF "Heavies" including the C-141A and the B-52 utilize the conventional system.

An area that should be investigated, particularly for large aircraft, regardless of type VASI present, is the Threshold Crossing Height (TCH). Numerous PAR's and ILS's, especially at fighter bases, have TCH's less than 50 feet. The only time C-141's can cross the threshold at less than 50 feet is when complying with ILS or PAR glidepaths (AFR 60-16, MACSUP 1, para 5-7i, is an exception). When flying a nonprecision approach, transitioning to these VASI's with TCH's less than 50 feet, and not PAR or ILS monitored, could prove embarrassing when one finds himself in overrun land.

Don K. Berry II, Capt, USAF
Safety Officer
20 MAS
Charleston AFB, S. C.

An Apology Due

Those of us who flew the C-130 for years had been curious and concerned ever since first news of the MAC takeover of the C-130 entered the rumor mill. What kind of reception might tactically oriented aircrews receive in MAC? Would MAC attempt to reorient their new acquisition? The article "C. R. Terror" in the April 1975 THE MAC FLYER ends the curiosity and simultaneously heightens the concern. The article is an entirely unwarranted attack on those who have flown the C-130. The author's last sentence in the second paragraph — which tries to put the aircraft commander in those C-130's formerly in MAC — does not hide the obvious hostility and intentional insults which burden the article. What was the author's intention when he puts quotes around "combat" when he described C. R.'s tour at CCK? Does the author wish to imply that those who flew from CCK (or from Naha and Clark for that matter) did not legitimately earn the right to call their tours "combat" tours? Has the author heard of Khe Sahn, A Shau Valley, Kam Duc, Kontum, An Loc, and dozens of other operations in which C-130's were shot down or received major battle damage?

You owe an apology to everyone who flew the C-130, and you owe an especially sincere plea for forgiveness from those who are now flying the C-130 for MAC.

Alan L. Gropman, Maj, USAF
Box 7849
APO New York 09012
and
Joe E. Blackwell
Bruce A. Nagle
Charles R. Holland
James A. Shoemaker
Helmut Transposch
Birdie Brevig
James E. Callahan

★ The author never intended to imply that C-130 crews who served tours at CCK, Naha, and Clark did not legitimately earn the right to call them "combat" tours. The outstanding record of the C-130 in Southeast Asia is well known. But C. R. Terror could probably manage to turn even a CCK tour into a self-serving good deal. Judging from your letter, "C. R. Terror" may be new to you. The feature has appeared regularly in the magazine for almost 21 years. C. R. has flown — and smashed — about every type of MAC aircraft from the C-118 to the C-5 and usually survives from one issue to another through the professionalism of his copilot, Sam. In short, C. R., through his negative example, broadcasts the MAC safety message. Most of our readers seem to enjoy the feature with that in mind.

What's It All About

★ One of the interesting aspects of working on any publication is receiving letters from its readers. Most of the letters we receive are clear in their purpose, but occasionally a few rather odd bits of correspondence show up in the mailbag. These two gems, written on Japanese postcards, arrived within a one-week period.

O. I. C. Crew Harrassment
Headquarters MAC
Scott AFB, Ill.

Dear Sir(s),

"Help." Being held prisoner Yokota A. B. Japan. Please contact Maj C. R. Terror. Anxiously awaiting advice.

Love always,
F.R.E.D. and the Boys

P S. Request R.B.I.

O. I. C. Crew Harrassment
Headquarters MAC
Scott AFB, Ill.

Dear Sir(s),
Disregard previous message. Breaking out immediately. Stop. Disregard R.B.I. Disregard request for advice from C. R. Terror. No forwarding address.

Sincerely,
F.R.E.D. and the Boys

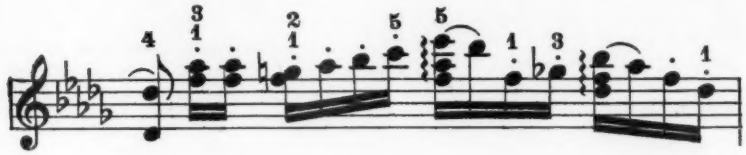
★ If any of you readers can shed any light on what this is all about, we would appreciate your enlightening us.

The editors welcome letters from all readers, both military and civilian. Letters should be addressed to:

MAC/IGFE
Editor, THE MAC FLYER
Scott AFB IL 62225

Letters should be signed. At the author's request, names will be withheld. Letters may be controversial in nature but should be written in good taste and address specific issues rather than personalities. The editors reserve the right to print each letter in whole or in part.

Sam may "play it again" but you could still have trouble hearing your favorite musical selection, especially if you hang around whining jets or turboprops.

Straining High

Woofer, tweeter, pre-amp, tuner-amp, tape deck, headphones, turntable, stereophonic, quadrasonic . . .

To you discriminating, sophisticated music lovers, you fans of Bach, Handel, Chicago, and John Denver, these terms indicate a sizeable outlay of funds. In return, you enjoy hours of musical ambrosia. Or do you? Does it seem as though your high-powered audio equipment isn't doing the job as well as it used to? If so, don't grab your amplifier and head for the repair shop. If you're an aircrew member, particularly on a C-130, the problem could be with your hearing.

Unlike stereo gear, your ears will withstand only so much loud noise before causing problems. And while a stereo manufacturer can guarantee his product, your ears don't carry a similar warranty.

The ear is a phenomenal device capable of detecting all sorts of pleasing sounds like the rustle of silk, soft and seductive background music, and the clink of wine glasses. But such sensitive audio equipment requires care. You can't drop your stereo on the floor and expect it to work; well, your hearing apparatus deserves the same consideration. You can't subject your ears to abuse and expect them to retain the capacity for detecting all those high-pitched tones in the works of the masters. Prolonged exposure to high noise levels may result in permanent ear damage.

If you are exposed to high noise levels for extended periods, permanent hearing loss is probable. The average home's noise level is about 65 decibels and the average for an office is about 80 decibels. The Herky is considerably noisier. An Air Force Logistics Command Medical Research laboratory study, upon which this article is based, provides some interesting data. The pilot of a C-130E flying at max endurance cruise, 12,600 inch pounds of torque, 800 degrees Centigrade TIT, 290 knots (true airspeed), 10,500 feet (pressure altitude), is exposed to 110 decibels.

What's all this mean to you? It means that current criteria (AFR 161-35) now limits exposure time to two hours and 50 minutes when no hearing protection device is used. If the headset (H-157 USAF issue) is used, exposure is limited to six hours and 44 minutes. The noise level in the cargo compartment — 115 decibels — is the highest. Maximum exposure time there is one hour without any hearing protection and four hours and 45 minutes with headset.

The solution? Very simple. Wear earplugs. Earplugs available from your flight surgeon extend allowable exposure time in the cargo compartment to 16 hours, much longer than most of us are required to fly on one sortie.

"Great," you say. "You've protected the music lovers. But I watch the tube and don't worry about those sensitive sounds. Why should I be concerned?" The answer to that involves accident prevention. Remember the last time bad weather trapped you inside your house — with the kids screaming and yelling? After awhile the irritation level may have reached a point that made

for the Notes

by Capt Jerry Valentine
MAC/IGFF

you want to lock yourself in a padded cell. Noise produces fatigue, increasing your accident potential.

"But," you say, "won't earplugs prevent me from hearing radio transmissions?" To the contrary. The guys who have been wearing earplugs under their headsets for awhile report that they hear radios more clearly. You may have to turn up the volume, but the plugs filter out a lot of the noise and make transmissions more discernible.

And remember, we're also responsible for the safety and comfort of our passengers. Encourage them to wear earplugs, too. The Flint disposable earplug (FSN 6515-721-9092) is available through supply channels. In fact, some units have made the plugs part of the aircraft equipment.

Other types of hearing protection are available, although some aren't adaptable to aircrew use. "Mickey Mouse" ears afford slightly less hearing protection than rubber or disposable earplugs. Studies conducted by the experts at Wright-Patterson uncovered some problems which reduced the effectiveness of other devices on the commercial market to less than that of the present USAF equipment. AFM 161-35 lists the current devices authorized for Air Force use.

In the final evaluation, the decision to protect your hearing is a personal one. Whether or not regulations require that you use protective devices, the only truly effective enforcement agency is you.

However . . .

A crew member who had trouble keeping his GI earplugs in place saw some for sale in a local pharmacy and purchased a set because they seemed to provide a good seal. The plugs were similar to the GI type except that there was a small metal cone inside the rubber.

Preparing to fly, the crew member inserted the new earplugs. After awhile they became uncomfortable, and he decided to take them out. But when he pulled one of the extraction tabs, it tore off and the earplug remained in place. The same thing happened to the other plug. He made further attempts to remove them but only drove them deeper into his ears.

After the aircraft had landed at home station, the suffering aviator sought professional help. The flight surgeon had to remove the metal inserts from the rubber plugs before he could retrieve them. Because they were in so deeply, the process of removing the plugs caused small abrasions to the ear canal.

The earplugs were returned to the merchant who was advised that the rubber appeared to have deterioriated.

Our friend's ears have healed properly with no permanent damage, but he recommends we all use only approved Air Force equipment, especially when it comes to earplugs.

Adapted from *NGB Monthly Safety Information Letter*

The Ancient Aeronaut, sidekick Sam, and Huey make a terrorific triad. But the search for fresh water bass gets our fun-loving thrill-seeker in hot water again.

C.R. TERROR

"TOLD data? Horsefeathers!" cried the Aviator with Avoirdupois to Long Suffering Sam. "I've wheeled, soared, and swung Hueys ever since they first slipped the muddy clutch of earth and danced on laughter-silvered rotors. Sunward I've climbed up, up the long delirious burning blue. No siree, takeoff and landing data is for FNG's. Just watch me pull collective to about 35 pounds torque and observe how spritely the sling-wing machine thrashes the sky."

"Sir, I hate to bring this up, but the torque meters were replaced by fuel flow meters back in '72," prompted Sam.

"Uh, ahhh, how right you are, Samuel m'boy. Just pulling a no-notice brain check to see if you're up to speed on all the Huey TCTO's, Sammy," teased the Lothario of the Hover Game. "By the way, Sammy, what's on today's aeronautical agenda?" challenged C. R.

"We're scheduled to fly Colonel Bomblast, commander of the 91st Strategic Missile Wing, out to the Hotel One Minuteman launch control facility. While he's at the facility for a one-hour inspection, we're slated to flight check ten other missile sites to insure that the windsocks and pads are operational," briefed Sam to his Bulging Boss.

C. R. suddenly beamed with delight and he looked at Sammy with a devilish twinkle in his eye. "How sweet it is, m'boy. If I heard you right, we got ourselves a blank check to burn up some quarterly flying time flying the friendly skies."

"That's not quite right, sir. We're supposed to . . ."

"Tsk, tsk, m'boy. As soon as we

dump this bottle rocket weenie, we'll take a heading for that big, beeyutiful blue lake down yonder to hunt up some good fishing spots while we, er, reconnoiter the area for suitable emergency landing sites," rationalized the Master Manipulator of Motors and Rotors.

Visions of widemouthed bass and fresh water catfish stirred C. R. into an unaccustomed hustle.

"C'mon, Sammy, time to start generating rotorwash," challenged the Clever Clutcher of the Collective as he bobbled out toward the blue and white chopper.

"Shouldn't you first check in with the SOF and fill out the release forms?" reminded Sam.

"Quite right, m'lad. I can see that you have the makings of a great pilot. Just stick with me and I'll teach you everything you need to know about the wide, wide world of rotors," pontificated the Paunchus Pilot as he hurriedly heeled about and marched into the operations office.

There the SOF gave a thorough briefing to both fliers on weather, notams, anti-hijacking procedures, and other special instructions, but C. R. pulled his plug.

"Yes, yes, fine, an excellent briefing, Lieutenant. But, of course, you know I've flown the good old Fox-model Huey since they first came out in '57," C. R. said, as he plugged an Egyptian Oval into his ivory cigarette holder.

"That's very interesting, Sir, since you'll be flying the first Huey the Air Force bought—back in 1964," replied the SOF.

"Ah, yes. I must be thinking of the OH-13 which first flew in '57," rebutted the Rotund One.

"Don't think so, Sir. That one flew in '47."

"How 'bout the OH-23?" C. R. shot back.

"That one flew in '52," replied the SOF, completing his paperwork.

"Maybe it was the B-52 . . . HH-43 . . . B-17D . . . AT-6A . . . Cessna 140," mumbled the Forgetful Fumbler. He grabbed Suffering Sam for support and quickly left the office and headed for the copter.

The before-starting checklist was relatively uneventful. Sam caught most of the checklist items C. R. missed but was momentarily distracted when he glanced outside to clear the left side prior to engine start.

"Confounded bug thrasher! I'd like to find the apprentice plumber who designed this Mickey Mouse machine," blustered C. R.

"What's the matter, Boss?" implored Sammy.

"The dang engine won't start. Got r.p.m. up to a point but no light-off. Check all the circuit breakers, call maintenance, call that fuzzy-faced SOF!" exploded the Frustrated Flier.

"Hold it a minute, boss, I think I got a handle on the problem. The fuel switch is off," observed Sam.

"Ahem, Sammy, for awhile I thought there was hope for your upgrade but overlooking a checklist item, such as this, only shows you need more time over there," suggested C. R., glancing toward the copilot position.

The Terrorific Twosome finally started the Huey but none too soon. An impatient Colonel Bomblast boarded the aircraft and the Huey soon darted skyward. Sam flew the aircraft while the World's Greatest Silver-Tongued Fox regaled and thoroughly bored the colonel with stories of the difficulties inherent in flying choppers and why fling-wing pilots are five times better than fixed-wingers.

Upon receiving landing clearance, C. R. took control and settled the chopper softly onto the helipad.

"Remember, Major, remain in

C.R. Terror

the area for immediate recall in case I have to get back to base in a hurry."

"Don't worry, Colonel, our motto is 'Huey Can-do.' We're at your beck and call," replied the Rotund Wonder.

As soon as the colonel cleared the whirling rotor blades, C. R. clutched the collective and pulled.

"Sammy m'boy, take note of this max performance takeoff," boasted C. R.

Sam was speechless. The helicopter shot 200 feet straight up into the air and nosed over toward a herd of cows. Taking a bead at the center of the herd, C. R. pulled in more collective and screamed downward, scattering the frightened animals and barely missing three telephone lines in an abrupt pull up.

"Wheeeee, just keeping sharp on tactical maneuvers like in SEA, m'boy."

But Sammy wasn't in any condition to acknowledge the abrupt meanderings of his boss. Regaining control of his voice, Suffering Sam managed to sputter, "S-s-sir, didn't you see on your map that this is a restricted, no-overfly area."

"Don't sweat the small stuff, m'lad. If anyone complains, we'll just say it was an Army Guard chopper that did all the low level acrobatics," responded the Pudgy Pilot, ignoring the fact that Army choppers are green.

"Now let's unwind this mutha and go looking for some good fishing areas. Did I ever tell you, Sammy, about the time I went deep sea fishing with a Navy friend of mine? Yep, me and Captain Ahab set sail in a 45-foot ketch . . ."

And so it went for the next hour despite Sam's protests that they were too low for radio communications and had failed to check the windsocks and helipads as ordered.

"Time's about up, m'boy. Better head on back to the launch facility to resume our air taxi mission," hinted the Lothario of the Lever.

"Hope nothing has come up that required us," added Sam.

"Naw, ole Bomblast is probably giving some launch control team a no-notice hassle," replied C. R.

As the Huey settled onto the pad, a sergeant scrambled aboard and informed the Rotor Rooter that Colonel Bomblast had departed for the base by pickup truck 40 minutes earlier.

"Yeeoooww, Sammy, why didn't you keep better track of the time," panicked the Paunchus Pilot.

The turbine engine wound up to an unheard of r.p.m., and the Huey rocketed off toward home base. After it landed, six security policemen escorted C. R. into the detachment commander's office while his dutiful copilot shut down the aircraft.

Facing C. R. as he walked into the office were Col Bomblast; Lt Col T. Rotor, the Detco; Col Beartrap, the base legal officer; and Lt Col Kare, wing safety officer. All stood like hungry vultures perched for an immediate strike.

"Major Terror, you are charged with dereliction of duty, violation of MAC, SAC, and FAA flying regulations, and gross incompetence,"

declared the detachment commander.

"Wha-wha-what do you mean, Sir?" responded the terrified Terror.

"Simply this, Major. Unsafe and hazardous flying, intentional and illegal buzzing, failure to carry out your assigned mission, and failure to maintain radio contact with the missile facility as ordered. An attorney will be appointed to represent you in disciplinary proceedings that will convene in two weeks. Until then, you're restricted to base. Dismissed, Major!"

Alternately shaking and saluting, C. R. backed out of the torture chamber. Once clear, he collapsed against the nearest wall as anxious Sam came rushing to assist.

"Sir, you look like you've been had. What happened?" asked C. R.'s loyal copilot.

Rapidly composing himself, C. R. nervously plucked out a gold-ringed Egyptian Oval from his flight suit and inserted it into his cigarette holder. A flick of the thumb and his solid gold Thai tiger lighter ignited the weed. In-

haling the blue smoke, C. R. looked at Sam and smiled weakly.

"Ahhh, no problem, at all, m'boy. You know how hot it can get on these summer afternoons in a small office with a busted air conditioner. Besides, the uppity-ups could not believe that I, a mere mortal, can handle a Huey in such a divine manner, especially with servo problems, heh, heh. In a couple of weeks this misunderstanding will be settled and I'll be flinging my groaning craft where a self-respecting lark or eagle never flies. But enough of this. Let us proceed to the Oasis of Liquid Delight and allow the Dispenser of Libations to fill our souls with fiery macho."

With that, the Connoisseur of the Vine linked arms with his faithful sidekick and faded into the sunset in the general direction of the Officers Club.

POW Anecdote

When we were shot down and captured by the North Vietnamese, it happened at a time when I was the first Air Force navigator they had ever seen. When I was confronted by my interrogator, the following dialogue took place:

Him: Ahhh, another pilot, yes?

Me: No, I'm a navigator.

Him: Navigator? I do not understand. You come down from sky in parachute, yes? You must be pilot.

Me: No, I'm the guy on the airplane who knows where we are.

Him: You no fly airplane? Where you sit?

Me: No, I don't fly. The pilot sits in front and I sit in back.

Him: But what work you do on airplane?

Me: I tell the pilot where to go. I tap his left shoulder to go left and his right shoulder to go right. I'm the guy who makes all the decisions as to what we do and where we go.

Him: Ahhh, now I see. You what they call aircraft commander.

Me: Now you got it, pal!

Maj Edward Hubbard
58 TFTW
Luke AFB, Ariz.

Air Clues

Fuel Crisis

The smell of fuel and fumes aboard an airborne craft gets the attention of the most lethargic crew member.

The load on the CONUS-bound C-5 was six A-37 type aircraft. The wee birds had been drained and purged as directed by the TO's. But during the initial climbout, the scanner smelled fumes in the cargo compartment and spotted fuel leaking from the removed A-37 wing sections. As the pervasive fumes reached the cockpit, the Galaxy commander leveled the C-5 and directed maximum airflow for the flightdeck and cargo compartment. The crew declared the emergency and the pilot executed a shallow descent and returned to departure station.

After an uneventful recovery, inspectors found that the leaking fluid was a mixture of JP-4 and purging fluid. The wing fuel lines had been sealed with tape due to the lack of proper plugs.

Controller Confusion

The mission was part of a Dash One cross country, and was supposed to terminate after several practice approaches at Sunny Beach AFB. After one penetration and nonprecision, the crew requested vectors for multiple PAR's; however, it soon became apparent that they'd get one full stop only. At one mile on ASR final, the controller said, "Take over visually; contact tower when landing completed." The pilot landed slightly long to avoid the barrier and was slowing through about 50 knots when tower came up on guard demanding an immediate left turn off the active. The pilot at the controls completed the rollout, turning at the next taxiway a thousand feet further on. In the turn he was able to note a DC-9 going around on final.

A somewhat heated discussion on the landline minutes later revealed some lack of communication. What approach had meant was "change to tower frequency prior to landing" since traffic was being positioned with minimum spacing. Regardless of their problems, a turn off initiated at that speed would have left bits and pieces of the nose gear all over the runway.

The pilot in this case had made a decision as to where he could exit the runway with his aircraft. There is a point at which you've got to say, "Not only no, but . . ." Let the other guy log another point one rather than close the runway for a couple of hours.

Hangar Flying
Safety Directorate, HQ ATC

Suck 'Em Up!

. . . might be a good slogan for an Island beer but it's equally appropriate in a discussion of the Pratt and Whitney vacuum cleaner.

The jet engine, an omnivorous creature, has been known to take in, masticate, and mutilate almost every conceivable substance even though its designer recommends a strict diet of air and kerosene. Our FOD folder is bulging with incidents concerning objects which appropriately should have borne the warning, "Keep out of the reach of turbofans." Some of the episodes are a bit humorous, like the maintenance person who lost her favorite wig into a whining jet engine. Humorous, but expensive. A more chilling incident involved ice that had formed from a leaking toilet drain. This icy ingestion at 33,000 feet caused the loss of one powerplant. (It separated from the fuselage and fell to earth.)

Another quick stop on a turbofan occurred at a Far Eastern base. The TF-33 was being run due to a compressor stall writeup. With moderate-to-heavy rain falling, the engine run supervisor didn't notice the deteriorated condition of the ramp in the run-up area. After shutdown, maintenance inspectors found foreign object damage requiring an engine change, and there was concrete residue in the first stage fan area.

It's not enough just to worry about the usual FOD; e.g., nuts, bolts, hats, tools, etc. Now the very ramp we pound has turned against us.

Qs

F-39 or T-86?

Two older pilots were standing near the tower observing the Sabreliner on takeoff roll. Reportedly, the conversation went something like this:

"Isn't it just purty — takes off short and hot just like our ole F-86's."

"Yeah, and they land like 'em too. Great airplane, similar in many ways. Why just look at the wing; it's our Sabre all over again."

We'll categorize the aforementioned conversation as a "verbal virus" — contagious and harmful. For the word steadily spreads that the T-39 does indeed fly like the F-86 until some pilot actually believes it. Then he subjects his sleek little bird to fighter-type maneuvers and G-forces. "Pitching out" for a 360 overhead is a beautiful trick but if not too subtly entered can exceed published limitations.

The T-39 and the F-86 wings may look alike, but that's where the similarity ends. Both the fuselage and wings on the T-39 were designed to sustain the loading conditions experienced by transport-type aircraft, not the violent maneuvers of a fighter. Fly it by the Dash One and neither will fail you.

Adapted from *4500 ABW Flying Safety Newsletter*

Deceptive Evasive

The pilot had just positioned his Hercules on the inbound radial, in the holding pattern, at 5,000 feet QNH). when he noticed an Army single engine in his eight to nine o'clock position about a mile and a half away. The smaller craft was in a 30-degree bank approximately 200 to 300 feet above the C-130; the Army pilot reported the C-130 at his flight level (apparently FL 60, QNE,

The C-130 crew responded with a "negative" after cross-checking all altimeters: 5,000 feet with 30.08 in the Kollsman. They also observed that the single engine was steepening its bank and descending in an apparent "evasive maneuver." This one was close! The MAC crew estimated that the Army bird passed 200 to 300 feet behind them at the same altitude.

Here's a case where evasive action almost "did in" a couple of crews. The pilot in the small craft obviously had a continuous visual on the Herk. The C-130 crew felt there was no danger upon initial visual contact, so the C-130 pilot took no evasive action. What caused our Army friend to feel he was in jeopardy?

Though both aircraft experienced VMC, they were *between* layers and the C-130 had just broken out of the clouds. The operator of the light bird was probably startled at the emerging C-130 and, in a 30-degree bank, with no real horizon, he may have erroneously determined that the Hercules was at his altitude — on a collision course; therefore he tightened his turn and descended to "avoid" the faster aircraft.

after deadline . . .

RADAR RADIATION HAZARD AREA -- A C-141, C-130, or C-5 preparing to depart is usually surrounded by pickups, vans, station wagons, power carts, and support personnel -- often within the radar radiation hazard area. Usually there's no problem since the radar is off, but at some time during his preflight the navigator must crank up and check out his radar. When the radar begins emitting energy, resultant radiation could be hazardous to personnel within the Dash One-depicted ground radiation hazard area.

Responding to a radar radiation hazard report from the field, MAC staff agencies evaluated numerous proposals to reduce the hazard. But due to adverse operational impact of most of these, the MAC Staff has decided it is more feasible to continue working with current procedures. But the Staff also emphasizes that before operating aircraft radar, flight crews must warn personnel in the hazard area and ensure that the area is clear. Once radar preflight checks are completed, normal work activities in this area may resume.

IMPROPER PIN INSTALLATION -- This one caused the crew serious concern. A T-39 pilot made a go-around on final and, as the gear folded neatly away, cockpit pressure instruments indicated a complete loss of normal hydraulic pressure. Emergency procedures were accomplished but normal pressure could not be regained.

Prior to the next approach, safe "wheels down" indications were obtained after the pilot pulled the mechanical landing gear emergency release handle. However, at touchdown, the hydraulic gauge suddenly indicated normal pressure. The pressure remained within limits until engine shutdown.

After hours of troubleshooting, maintenance personnel found that a pin in the main landing gear door hydraulic dump valve linkage was incorrectly installed. Its head was protruding through the top of the linkage instead of the bottom as it should have been. During the previous gear retraction, the protruding head apparently was damaged when it contacted a screw head on the main landing gear door hydraulic manual control valve assembly. This allowed hydraulic pressure to bleed off. The pin apparently jarred loose during touchdown.

Subsequent inspection of other assigned T-39's disclosed improperly installed pins on two other aircraft. Fleet-wide inspection for proper installation of the main landing gear door hydraulic manual dump valve linkage pin (P/N MS20392-2011, Index 5, T. O. 1T-39A, fig. 180B) is being directed.

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Touch and Go

ROGER, TOWER. WE FOUND IT-TELL THE GENERAL TO BRING HIS NINE IRON.